
10. Sort, by George

Program Name: Sort.java

Input File: sort.dat

George wants to sort a list of words alphabetically, but not in normal alphabetical order. He has reassigned the order of the 26 letters of the alphabet to the order he thinks they should be. He needs you to write a program that will sort, in ascending order, a list of words using his alphabetic ordering system.

For example, if:

- George's alphabetic ordering system is the string QWERTYUIOPASDFGHJKLZXCVBNM
- He wants to sort the words:
PICK
KEYBOARD
PICKLE
ZEBRA
KEYS
ANTEATER
- The result would be:
PICK
PICKLE
ANTEATER
KEYS
KEYBOARD
ZEBRA

Input

The first line of input will contain a single integer n that indicates the number of sets of words to be sorted. For each set of words:

- The first line will contain a string of 26 distinct uppercase letters of the alphabet with no spaces. This string will be used as the alphabetic ordering system for the words in the set.
- The next line will be a single integer $m \leq 20$ that will indicate the number of words to be sorted.
- The next m lines will contain the list of words to be sorted. Each of the m lines will contain a single word composed of 15 or fewer uppercase letters of the alphabet.

Output

For each set of input, you will print the list of words in increasing order using the alphabetic ordering system for that set. Print one word per line and print at least one blank line after each set.

Example Input File

```
1
POIUYTREWQASDFGHJKLMNBVCXZ
11
COMPUTER
SCIENCE
FUN
IS
SCIENTIFICALLY
FUNDAMENTAL
UIL
STATE
IS
CHALLENGING
AND
```

Example Output to Screen

```
IS
IS
UIL
AND
STATE
SCIENTIFICALLY
SCIENCE
FUN
FUNDAMENTAL
COMPUTER
CHALLENGING
```

Note: A blank line at the end of the output is optional.